

Exhibit A

Robert C. Faber, *Faber on Mechanics of Patent Claim Drafting*,
§§ 3:3 and 10:3.2 (6th ed.) (2010)

Faber on Mechanics of Patent Claim Drafting

SIXTH EDITION



§ 3:3 Elements of Apparatus Claims

The “elements” of an apparatus claim are the main structural parts that together make up the combination claimed. As illustrated in Claim 1, the complete description of each element forms the subject matter of a separate clause, or subparagraph, of the claim.

A workpiece is a thing that the invention uses or operates upon and perhaps changes. The workpiece (“articles” in Claim 1) should be identified in the preamble of the claim, but not made an element of the claimed combination.³ The workpiece appears in the body of the claim, as it interacts with a claim element.

One of the most important technical “rules” of form in drafting claims is that it is never proper to introduce a new element of the claim in the middle of the clause describing another element, or to describe an operation or action upon or by a new element without its having been introduced. This is sometimes called “inferential claiming.”⁴ Each new element in a product claim and each new step in a method claim should be first introduced either as (a) the subject of its own clause (“a container,” “a base,” etc., in Claim 1 above), or (b) a previously introduced and named item or a step comprises it, has it or includes it, that is, its presence is indicated by using a verb that describes the state of being (having, comprising, including, being), as in “a container [subject] having (comprising, including, being, etc.) [a word suggesting later element is a part of earlier one] a plurality of legs [subjects]” rather than an action verb or a verb indicating something is being done to or with the element, as “is connected” in Claim 1 above. Being the subject of its own clause means that it is either stated in the clause that such an element or step is present or the element or step is named at the beginning of the clause and thereafter that element or step, which has been named now for the first time, does something or has something done to it. It is important that a new item mentioned for the first time in the claim not be first mentioned as an element operated upon or cooperated with by a previous element described in the same clause. A clause can have more than one element as a subject, but only as limited above.

Every new element must be introduced by “a” or “an” (the part of speech called an indefinite article) or by no article at all, especially when the element is some means for performing a function (element (d) in Claim 1 above), or the element is stated in the plural (for example, “containers” or “container means”). Every subsequent mention of the previously identified element must be preceded by the definite article

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3. Even if it were proper to make the workpiece an element of the combination, one would rarely wish to do so, as it would unduly narrow the claim. A machine manufacturer would rarely sell the workpiece along with the machine. Thus he would not be a direct infringer [35 U.S.C. § 271(a)] of the claim.
 4. M.P.E.P. § 706.03(d).

"the" or by "said." To repeat the same element, preceded by the indefinite article "a" or "an," or preceded by no article at all for "means" or an element in the plural, implies that a new element is being introduced in the clause. This causes undesired and inaccurate double inclusion of one element.

Although it may be quite natural, and good practice in the descriptive portion of the specification, to state: "a container which is connected pivotally to a plurality of parallel legs," it is improper in the claim. The legs are separate elements of the combination, and thus should be positively set out and defined in the claim, as in Claim 1.

Another example:

Wrong: A lever having a forked end pivoted on a pin mounted between the furcations of the forked end.

Note, the pin is not part of the lever; it is a separate mechanical element.

Better: (a) a lever having a forked end; and
(b) a pivot pin mounted between the furcations of the forked end

Better Still: (a) a lever having a forked end,
(b) the forked end comprising spaced apart furcations; and
(c) a pivot pin mounted between furcations

The only exception to the inferential claiming prohibition is where the indefinite article "a" is used to introduce a workpiece. Because the workpiece is not an element of the claim, but rather it is only worked upon by one of the claim elements, it would not be introduced as the subject of its own clause.

A further example of improper inferential claiming is the clause "the motor being connected with a shaft which is connected with the gear for driving the gear." In that claim limitation, the shaft is inferentially claimed. It is not the subject of the clause. If there is a subject, it is the motor or the gear. Also, the shaft is not being described in a state of being with respect to the motor or the gear, but rather it is being described in a state of action. Proper wording might be "a shaft connected with the motor and with the gear for communicating driving motion from the motor to the gear." This says the same thing, but does not inferentially claim the shaft. (Implicit in this clause, of course, is that the motor and the gear were previously introduced in the claim, since each is preceded in the clause by the definite article "the.") Referring to the other exception, if the clause reads "the motor including a shaft extending to the gear," that would not be inferential claiming. The shaft has been

first introduced in the claim in a state of being with respect to the motor, so that for an inferential claiming analysis, the shaft is now properly in the claim. Thereafter, and even in the same shaft introducing clause, the shaft can be active, and it is described as cooperating with the gear. It is no longer inferential claiming once the element with the indefinite article "a" has been properly introduced.

Four essential elements (*italicized*) were selected for the combination of Claim 1 (section 3:1.1, above):

- (a) the container,
- (b) the base,
- (c) the legs, and
- (d) the oscillating means.

Note that all of these parts are essential, within the framework of the scope of claim desired, to accomplish the shaking of the articles, and that nothing more is needed. If a narrower claim were desired, the motor, cam, and cam follower linkage (together making up the oscillating means) could be made elements of the claim.

For the writing of broad claims, one concentrates on the minimum number of elements essential to the invention. As stated in M.P.E.P. section 706.03(f): "A claim can be rejected as incomplete if it omits essential elements, steps or necessary structural cooperative relationship of elements. . . ." It is also wise, at least in the broadest claims, to concentrate on what a potential infringer might sell, and leave out such conventional elements as power supplies, water supply hoses, compressed air sources, etc., which might not be sold as part of the combination.

There are usually four important things to tell about each element:

1. What is its name?
2. What are its constituent parts, if any, or distinctive features, that is, what features are necessary for the purposes of this claim to distinguish this element from any other element of the class?
3. How are it and its parts cooperatively associated with at least one other of the other elements or parts to accomplish the desired result? Or, what is the necessary connection and cooperation between the elements and parts?
4. Where pertinent, what does each element do and how does it do it?
5. Under (3) and (4), each element must be related structurally and/or in terms of functional cooperation or both with at least one other element.

One analogy is to think of the elements as islands, the parts of elements as peninsulas, and the statements of connection and cooperation as bridges. When the claim is done, all islands must be connected by bridges. Thus one composes a claim to a complete mechanical combination, or "machine."

Summary

Find the main elements or parts of the machine to be claimed. Make each element the subject of one clause of the body of the claim. The claim must name the elements and tell how they are related to each other either physically and/or functionally and cooperatively to be the article or to do the job stated in the preamble. The following sections focus on how to do all this.

§ 3:4 Workpiece or Environmental Element

Most claimed apparatus operate upon something or use something, or are operated upon and/or used by something else. Similarly, most methods act on something or involve something that is acted upon. That workpiece or environmental element should be recited for a claim to be complete and make sense. Yet, it should not be claimed in a manner suggesting that it is one of the elements of the invention claimed.

"Inclusion of material or article worked upon by a structure being claimed does not import patentability to the claims."⁵

An element of a claimed combination may have a characteristic or feature of the element defined in terms of some characteristic or feature of a workpiece with which the element cooperates, like size, color, brightness, shape, texture, etc. In *Ex parte Wolfskill*,⁶ the former Board of Appeals held that defining the dimension of a part by positive reference to the dimension of a workpiece was not indefinite. The claim read: "Apparatus for lapping piezoelectric crystal blanks . . . said guide member having a thickness equal to several times the thickness of the crystal blank. . . ." In *Canon, Inc. v. GCC International, Ltd.*⁷ the claim covers the cartridge which may be placed in a hole in the main or machine assembly and the assembly is the environment for the cartridge, so that the claim is construed to cover the cartridge, not a combination of the cartridge and the assembly.

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5. M.P.E.P. § 2115; *In re Young*, 75 F.2d 996, 25 U.S.P.Q. (BNA) 69 (C.C.P.A. 1935); *In re Otto*, 312 F.2d 937, 136 U.S.P.Q. (BNA) 458 (C.C.P.A. 1963); *In re Casey*, 370 F.2d 576, 152 U.S.P.Q. (BNA) 235 (C.C.P.A. 1967).
 6. *Ex parte Wolfskill*, 97 U.S.P.Q. (BNA) 176 (B.P.A.I. 1953).
 7. *Canon, Inc. v. GCC Int'l Ltd.*, 450 F. Supp. 2d 243, 81 U.S.P.Q.2d (BNA) 1642 (S.D.N.Y. 2006).

17. The method of claim 10, wherein the ironing surface first leading side is at the front end of the ironing surface and the ironing surface second leading side is at the rear end of the ironing surface.

§ 10:3.2 Elements of a Method Claim

1. A method claim recites a series of steps, typically not apparatus features, article of manufacture features, or characteristics of components. A method claim names each method step. A product claim names each structural element.³¹
2. The step in a method claim is recited in the verb gerund or "-ing" form. (See Claim 10 above.) It is an active form of a verb. Even non-action verbs are used actively, for example, "waiting." Other verb forms are avoided, such as a passive form. For example, use "introducing," not "is introduced." The gerund form typically causes the verb to be the first word in the method limitation, but not always.
3. Typically, a method step in a claim is described in terms of operating on something, either on an apparatus (the ironing surface, above) that in turn operates on the workpiece (the object being ironed, above) or directly on the workpiece, for accomplishing a particular objective.
4. A method limitation names the step by using an appropriate descriptive verb word from the specification (moving, delivering, blocking). As with a product claim, if the needed verb is not in the specification, it is recommended that the word from the claim be added into the specification by the claim drafter.
5. The step is described by indicating what object or workpiece the step is performed on, for example, "striking the workpiece. . . ." An invention seldom performs a step without acting on something.
6. Where possible, a function or purpose for performing each step is indicated, for example, "striking the workpiece for flattening" it. (See Claim 10 above, first "applying" limitation.)
 - a. As with product claims, sometimes the function need not be described if an adequate description is provided by naming the step performed and indicating what the step is performed on.

31. See *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 15 U.S.P.Q.2d (BNA) 1525 (Fed. Cir. 1990).

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- b. On other occasions, there is an adequate description of the claimed function by naming the step and indicating the function that the step is performing without indicating the structure or workpiece on which the step is being performed, for example, "hammering for flattening the workpiece" or "hammering the workpiece for flattening it." This, the process equivalent of a "means for" limitation, is permitted under 35 U.S.C. § 112, and is discussed briefly below.

§ 10:3.3 *In a Method Claim, a Product Is Not Being Claimed*

1. A product recited in a method claim is a structure which performs some or all of the steps indicated in the claim "rotating two fingers of the machine . . ." and/or performs those steps on the workpiece "rotating two fingers against the workpiece . . .," or broadly "contacting the workpiece. . . ." The last mentioned clause is a broad method clause just indicating what is happening without specifying the product that participates in accomplishing it.
2. A narrow method limitation has a method verb acting on some machine element to act on the workpiece. Broader still is to have the method step acting on the workpiece without reciting a particular machine element that does that action. Possibly broader still would just be reciting a process step for accomplishing a result which is on the way to accomplishing the objective of the method, without specifying the nature of the particular step that accomplishes it. That is, the method analog of a means for accomplishing a function claim limitation.
3. The Patent and Trademark Office has released proposed new examination guidelines for evaluating the patentability of computer-related inventions. The examiners, when classifying the invention defined by each claim as to its statutory category, should presume that a series of specific operational steps to be performed in or with the aid of a computer is a statutory "process." The computer is an apparatus performing a process.

§ 10:3.4 *A Dependent Method Claim*

1. A dependent method claim either adds additional limitations (Claim 13 above) or details or further defines previous